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Jennifer Hofmann and Willibald Ruch

Abstract The following theoretical position paper has the aim to outline two important future directions of humour intervention research. Firstly, existing humour trainings have not differentiated explicitly between different uses of humour or humour that may be virtuous or not. Within the realm of Positive Psychology, all virtuous forms of humour need to be identified and interventions developed that aim at fostering these benevolent/lighter forms. Secondly, most humour trainings have been adapted and conducted in one cultural context. Future trainings should consider cross-cultural perspectives to allow for comparative research and practice. Thus, the current paper first gives an overview on the extant literature on the distinction between lighter and darker forms of humour, as well as showing how humour can serve the virtues proposed by Peterson and Seligman (2004). Then, we elaborate on the findings on humour and well-being, as well as findings on existing humour interventions. The second section starts with open questions and hypotheses on how a new generation of trainings targeting lighter forms of humour could look like. Then, we discuss (potential) cultural differences in humour and how this may affect the design of interventions. When aiming for cross-cultural adaptations of the same humour program, several challenges have to be overcome, such as the term "humour" not having the same meaning in every culture, and cultural rules on what can be laughed at.

Keywords Benevolent humour · Intervention · Laughter · Positive emotion · Sense of humour · Training · Well-being

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1 Introduction

It was shown that the cultivation of humour can lead to increases in well-being and to the fostering of ones sense of humour or humour as a character strength (e.g., Gander, Proyer, Ruch, & Wyss, 2013; Hofmann, Heintz, Pang, & Ruch, 2019; Mesmer-Magnus, Glew, & Viswesvaran, 2012; Proyer, Ruch, & Buschor, 2013; Ruch, Hofmann, Rusch, & Stolz, 2018; Ruch & Hofmann, 2017 for an overview). Moreover, humour has been coined a social lubricant (cf. Glenn, 2003), and may help to foster personal bonds and sustain friendships (for an overview, see Martin, 2007). Humour may help to deal with averse situations and conditions, ones' own weaknesses and the imperfection of the world, humans and oneself (see McGhee, 2010). Moreover, humour helps to cope with stress and even serves to correct and address problems and wrongdoings (see Ruch & Heintz, 2016).

Yet, not all humour or humour use is beneficial. More concretely, a person may habitually enjoy and engage in humour that has positive social functions, serves a virtuous purpose or serves to induce positive emotions in others, *or* a person may enjoy, utter and seek out for amusing things that may include aggressive elements (e.g., Ferguson & Ford, 2008), are derogatory, ostracize others, put them down or are a means of expressing *schadenfreude* (malicious pleasure; e.g., Hofmann, Platt, & Ruch, 2017).

As a consequence of this, a distinction between "laughing with" and "laughing at" exists. Related distinctions of "positive versus negative" humour styles, "adaptive versus maladaptive" styles or "lighter versus darker" came into use. These distinctions are typically supported by correlations with different outcomes (e.g., Martin, 2007; Ruch, Heintz, Wagner, Platt, & Proyer, 2018). Thus, differentiating "good/lighter" and "bad/darker humour" seems essential when investigating the consequences of humour for the individual and the interaction partners. Supportive of this, Papousek and colleagues (2017) reported that the use of "lighter" versus "darker" forms of humour may even be rooted in the brain (for individuals using lighter styles, areas linked to the "reward system" are more active when hearing others happy laughter as opposed to others crying; Papousek et al., 2017). Consequently, this knowledge should affect the designing of interventions to foster humour. While it has been pointed out before (see Hofmann et al., 2019) that such a binary classification into lighter versus darker makes a rather coarse distinction of a complex phenomenon (as most humour is neutral; Beermann & Ruch, 2009a) it is still useful for looking at forms of humour and humour uses that should feed into Positive Psychology Interventions (PPI) on humour.

We argue that lighter forms of humour that have a good intention and may even serve a virtuous purpose are the forms of humour that should be directly fostered in humour trainings, leading to the development of new PPIs. Thus far, no scientifically evaluated humour intervention directly makes this distinction between forms and uses of humour. This new generation of humour trainings should further be aware of cultural differences and also be sensitive to different perceptions and uses of humour in varying cultures. This second consideration is not targeted in current discourse,

as most available trainings and evaluations have been done in one cultural context only.

Thus, the current chapter first gives an overview on the state-of the-art on the distinction between lighter and darker forms of humour[1] within current conceptualizations of sense of humour and comic styles, as well as showing how humour can serve the virtues. Then, we elaborate on the findings on humour and well-being, as well as findings on existing humour interventions. The second section starts with open questions and hypotheses on how a new generation of trainings targeting lighter forms of humour and increasing the sensitivity for darker forms of humour could look like. Then, we discuss (potential) cultural differences in humour and how this may affect the design of interventions. When aiming for cross-cultural adaptations of the same humour program, several challenges have to be overcome, such as the term "humour" not having the same meaning in every culture, cultural rules on what can be laughed at, etc.

2 Literature Review

2.1 Humour

While humour is nowadays often used as an umbrella term for "everything funny and laughable" (e.g., Roeckelein, 2002), the term humour has undergone a long development with different meanings being assigned to it in different time periods. This evolution of the term includes that the use of the term has not always had the same valence. For the current review, ideas on the notion that some forms or uses of humour are good and adaptive are of particular interest. These ideas date back to ideas of Aristotle and in more recent times in the "humour and health/resilience" movement in applied fields, as well as a growing interest in this connection in research.

For Aristotle, humour may be a virtue if certain conditions are met: *Eutrapelia*, the virtuous form of humour is to joke and amuse without hurting (or to joke in a tactful way). More precisely, "ready wit" is moderation in the desire to amuse others, and the

[1]The distinction between lighter and darker forms of humour as used in this chapter focuses on the *intention* of the person producing or uttering the humour for the following reasons: Somebody who produces humour may have a good intention or not. Within PPIs, humour trainings should focus on good-intended humour that aims at fostering positive emotions, relationships and good character (i.e., lighter styles of humour). Yet, whether this well-intended humour is received as such depends on the context and the receiver. Thus, even the best intended benevolent humorous remark could potentially be taken negatively under certain conditions (e.g., when the person the humour is addressed to has a fear of being laughed at, cf. Ruch, Hofmann, Platt, & Proyer, 2014 for a review)—but this is not under the humourist's control. Therefore, classifying humour by its outcome would make any kind of classification attempt impossible, as consequences may vary with every change of condition, social context and receiver. For this reason, we focus on distinguishing lighter and darker forms of humour based on the intentions of the individuals producing and communicating the humour.

excess desire is buffoonery (amuse others too often, striving for laughter at all costs, laughing excessively, relentless mockery), and the deficient desire is boorishness (e.g., not getting involved in joking at all, feeling negatively about it). Yet, Aristotle's view remained a "minority opinion" throughout the coming centuries, with scholars mostly viewing laughter and humour as a negative/derogatory phenomenon. For example, Hobbes (1651/2010) argued in his Leviathan that the experience of "sudden glory" when perceiving somebody else as *less smart, beautiful, skilful*, etc. is a source of laughter (note that Hobbes wrote about laughter, not humour, and the two terms have long been used interchangeably). This idea latter fed into a group of humour theories labelled "superiority theories of humour". They all imply that amusement arises from a comparison of ourselves to others, which are less fortunate and therefore become a target of laughter.

This notion greatly changed with the emergence of humanism (cf. Ruch, 2004). In this period, humour acquired an explicitly positive connotation and the idea developed that while laughing at the weak and unfortunate should be avoided ("bad humour" or "false wit"), humour should be the ability to laugh at the imperfect world and human nature ("good humour" or "true wit"). The term "good humour" later shortened to humour alone (see Rugenstein, 2014; Schmidt-Hidding, 1963). In the 19th century, the terms humour and wit were explicitly distinguished, with wit denoting cognitive capacity (that could be hurtful as well) and humour denoting an attitude or view of life grounded in a "sympathetic heart". Humour also became a cardinal virtue in England, among common sense, tolerance and compromise. Yet, the use of the term did not develop in other cultures in the same way, explaining why the term humour nowadays has multiple meanings across cultural groups. For example, the Anglo-American literature of more recent times suggests that humour may be used as an umbrella term for everything funny and laughable, including mockery, sarcasm and put-down humour. In the next section, more recent approaches to differentiate lighter and darker forms of humour are presented in more detail in order of appearance.

2.2 How to Tell Lighter from Darker Forms of Humour

2.2.1 Humour as a Character Strength

Peterson and Seligman (2004) included humour as one of the 24 character strengths in their Values in Action [VIA] Classification. They defined a humorous individual as "one who is skilled at laughing and gentle teasing, at bringing smiles to the faces of others, at seeing the light side, and at making (not necessarily telling) jokes" and therefore focusing "on those forms of humour that serve some moral good—by making the human condition more bearable by drawing attention to its contradictions, by sustaining good cheer in the face of despair, by building social bonds" (Peterson & Seligman, 2004, p. 530). This conceptualization is explicitly restricted to lighter forms and uses of humour. Thus, focusing on the character strength definition of

humour may be one way to disentangle lighter versus darker forms and uses of humour for interventions.

2.2.2 Humour Styles/Comic Styles

More recently, several attempts to classify lighter and darker forms of humour were put forward. First, Martin, Puhlik-Doris, Larsen, Gray, and Weir (2003) differentiated between humour styles that are adaptive and such that are maladaptive. This classification has become very popular in humour research as it attempts differentiating between humour that is supposedly "good" for the individual versus humour which has "bad effects". Consequently, self-enhancing and affiliative humour styles are denoted to be adaptive; aggressive and self-defeating humour styles are denoted to be maladaptive. This is supported by the fact that the former two typically correlate with positive outcomes and the latter correlates with variables of a more negative connotation (e.g., Martin, 2007). Unfortunately, the measurement instrument to assess these humour styles shows a lack of construct and criterion validity, in particular with respect to the self-defeating humour style which might be overcome with a revision (e.g., Ruch & Heintz, 2017).

Looking at comic styles coming from a tradition of the aesthetics (cf. Schmidt-Hidding, 1963), Ruch and colleagues have put forward a model of eight comic styles that cover individual differences in humour (Ruch, Heintz, et al., 2018).[2] These comic styles are best seen as narrow traits and describe the habitual use of humour in everyday lives. Yet, they also cover ability aspects of humour and the link of humour use to virtuousness (with the latter being of particular interest). The model distinguishes among more cognitive and sophisticated styles, such as nonsense (going beyond logical boundaries) and wit (clever and spontaneous word-plays), as well as clearly lighter forms of humour, such as fun (good-natured jesting) and benevolent humour (tolerant, gentle and forgiving view on weaknesses and mistakes). The darker or more mockery-related styles include irony (saying the opposite of what is meant that is only understood by insiders), sarcasm (critical, biting remarks and *schadenfreude*), and cynicism (comments that question morality and hypocrisy). Satire/corrective humour (criticizing inadequacies with the aim to improve them) entails the potential inductions of negative affect and consequences in the target. It may not be clearly assigned to the darker styles, as the motivation behind the criticism is of virtuous nature (i.e., changing a status quo *for the better*).

A joint investigation of the two approaches yielded considerable redundancy (three styles where roughly interchangeable) so that right now it is safe to conclude that at least nine humour/comic styles can distinguished (Heintz & Ruch, 2019). When relating the comic styles to the character strengths classification proposed by Peterson and Seligman (2004), benevolent humour and wit showed mostly positive correlations with the 24 character strengths proposed by the classification by Peterson and Seligman (2004), while sarcasm and cynicism showed mostly negative correlations.

[2]The term "comic styles" is used to acknowledge the origin of these eight humour styles.

Fun, wit and benevolent humour were most strongly positively correlated to humour as a character strength, followed by nonsense, satire/corrective humour and irony. Sarcasm and cynicism showed small but still significant correlations as well.

When looking at the strengths factors derived from the VIA-Inventory of Strengths (emotional, interpersonal, restraint, intellectual and theological strengths) and correlating them to the comic styles, following relationships were found (cf. Ruch, Heintz, et al., 2018) :

- Fun was found to correlate positively with emotional strengths and negatively with strengths of restraint
- Benevolent humour was strongly positively correlated with emotional strengths and positively related to intellectual strengths
- Wit and nonsense were positively correlated with emotional strengths and positively related to intellectual strengths (just as benevolent humour), but also showed a negative correlation with the strengths of restraint (just as fun)
- Satire/corrective humour correlated positively with emotional and intellectual strengths, as well as negatively with strengths of restraint
- In line with the expectations, irony, sarcasm and cynicism correlated negatively with interpersonal strengths and positively with intellectual strengths
- Sarcasm and cynicism further related negatively to theological strengths and strengths of restraint.

Overall, these correlations were in line with the expectations and show that lighter versus darker forms of humour indeed share specific correlation patterns to strengths factors. In particular, the correlations to strengths of restraint may be important to consider when looking at cross-cultural adaptations of humour trainings, as cultures may vary in norms of free expression of spontaneous thoughts and strictness of rules of normative/acceptable behaviour.

2.2.3 Humour Factors Derived from Everyday Humorous Conduct

How many dimensions does one need to represent all humour behaviours in a model? This would be good to know as it allows us to first study the correlations of these dimensions to determine whether it is desirable to train those dimension or attempt to reduce them. While the first instruments measuring the sense of humour were often uni-dimensional it is common place nowadays to distinguish several dimensions in humour. Based on earlier work by Craik, Lampert, and Nelson (1996), Ruch and Heintz (in press) recently suggested that six dimension might be sufficient to account for everyday humorous behaviour. Craik and colleagues (1996) generated a set of 100 non-redundant statements from a survey of the theoretical and empirical psychological research literature on humour and from observations of everyday social life. When presenting the statements in a Q-Sort, 10 styles located on five bipolar dimension were found, namely the *socially warm versus cold*, *reflective versus boorish, competent versus inept, earthy versus repressed, and benign versus mean-spirited* humorous styles. Using the same 100 statements in self- and peer ratings (but not in

a Q-Sort) Ruch and Heintz (in press) found six factors, with four of them of greater importance and two minor ones. The factors were labelled:

- Earthy and mean-spirited humour (factor 1)
- Entertaining (factor 2)
- Inept (factor 3)
- Reflective/benign humour (factor 4)
- Laughter (factor 5)
- Canned humour (factor 6).

Figure 1 shows the results of a hierarchical factor analysis; i.e., how the factors unfold from the first unrotated principal component that is loaded by all styles (general humorous conduct vs. repressed) to the preferred solution with six factors. In the first step the styles split by their valence into negative/dark styles and positive ones (sense of humour vs. cold/inept). Interestingly, the indicators of a sense of humour (see Craik et al., 1996) all load on this factor and demonstrate that it is a complex construct at a more general level. In a next step the sense of humour composite splits up into a socio-affective factor (entertaining) and a cognitive factor (sophisticated vs. inept/boorish) and from the next level onwards the four more potent factors (mean spirited/earthy, entertaining, inept, reflective/benign) remain stable. In the next steps there are minor adjustments and two additional minor factors of laughter and canned humour emerge. This six-factor solution was considered to be optimal and interpreted and a scale for the measurement of the six was designed.

The first factor merged the *earthy* (e.g., "Makes jokes about the macabre and the grotesque") and *mean-spirited styles* (e.g., "Jokes about other's imperfections"). The high scorer on this factor transgresses boundaries by disrespecting conventions and indulging in "bad taste" (e.g., bawdy, bathroom, vulgar, and macabre) humour and by mocking others (e.g., needling them, laughing at them, and being sarcastic). This factor clearly matches the definition of darker aspects of humour and should thus be avoided in training programs.

The second factor (*entertaining*) merges the *socially warm* (e.g., Uses good-natured jests to put others at ease), *competent* (e.g., Enhances humorous impact with a deft sense of timing), and *boorish* (e.g., Has a reputation as a practical joker) styles and depicts the high scorer as a skilled resourceful entertainer keen to be seen as funny. This factor can be assigned to the lighter forms of humour, as it entails good-natured teasing. Training of this factor will be close to the traditional trainings as it enables the individual to effectively and competently use humour with others.

The third factor tentatively labelled *inept* merges items from the *inept style* (e.g., "Spoils jokes by laughing before finishing them") and the *socially cold* (e.g., "Only with difficulty can laugh at personal failings") style. While this factor has potentially little negative impact on others, it has a negative impact for the individual itself, mostly due to "lacking humour". Thus, this factor does not belong to the darker aspects of humour, but rather represents inability and a lack of humour.

The factor of *reflective/benign humour* is the new kid on the block. It merges the *benign* (e.g., "Enjoys witticisms which are intellectually challenging") and *reflective*

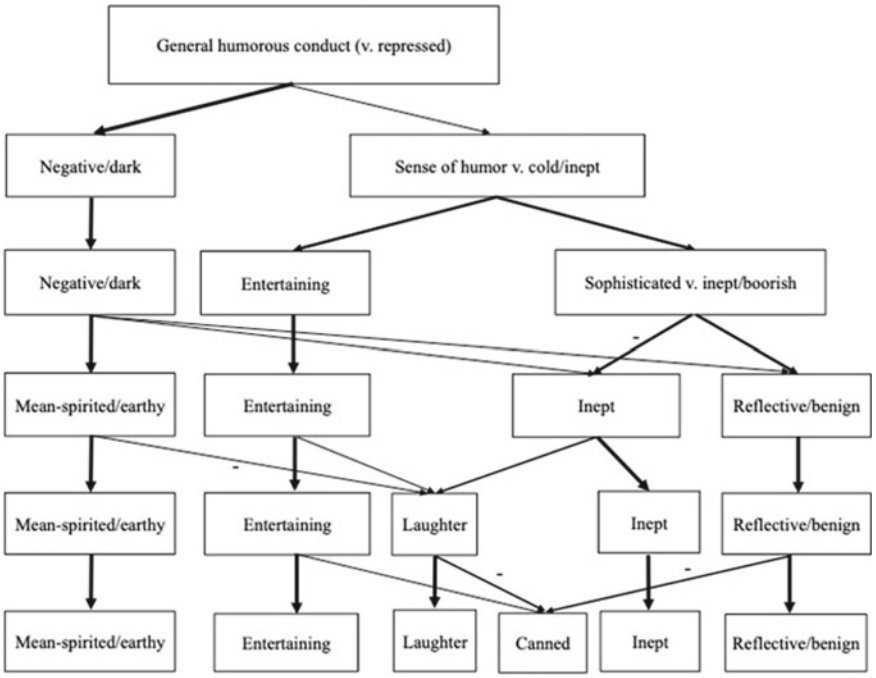

Fig. 1 Hierachical development of the humor factors

styles (e.g., "Takes pleasure in bemused reflections on self and others") and can clearly be assigned to the lighter forms of humour.

Factor five (*laughter*) describes people with a low threshold for laughter and who laughs intensely and heartily. The last factor 6 (*canned humour*) mostly captured contents related to jokes versus spontaneous humour. Thus, a broader perspective on everyday humour shows that three relate to stereotypical humour, inability to produce humour and evil intended humour, but three lighter forms involve laughter and positive emotion, social engagement in humour and cognitive-reflective elements. For several of these no training exists as yet.

2.3 Humour May Serve Six Virtues of the VIA Classification

When looking at how humour as a character strength maps to the six postulated virtues by Peterson and Seligman (2004), it was shown that although it is theoretically assigned to transcendence (after some discussion, as the authors state), it is empirically usually most strongly aligned to humanity and wisdom (Ruch & Proyer, 2015). Müller and Ruch (2011) investigated the relation between the five dimensions of humorous conduct (Craik et al., 1996), the sense of humour, and humour as

a strength in relation to virtues. Results again suggested that the different scales have a common basis in humanity. However, additionally, strengths related to the virtue of temperance were also related to not showing mean-spirited and earthy forms of humour. Thus, the morally good may be in *not* indulging in some forms of humour. The lack of relation to transcendence might be puzzling but this may be explained by the nature of items in the humour scale of the VIA-IS that do not emphasize an element of transcendence. Two studies by Beermann and Ruch (2009a, 2009b) basically showed that humour can be combined with all six virtues and empirically is most frequently related to humanity. In one of these studies, the items of 12 popular humour instruments were first rated for vice versus virtue and it turned out that most humour is neutral but it also may contain vice and virtue. In a second step experts identified the nature of the virtues and it was apparent that all virtues were covered with humanity and wisdom being most frequently covered.

In a further study (Beermann & Ruch, 2009a, 2009b) individuals recollected memory events where they acted in line with each of the six virtues and while doing so also used humour. Again, participants managed to report situations for each virtue but the combination of using humour when acting good was most frequent for humanity and wisdom. The nature of the humour was rated too and it turned out that benevolent comic styles were used more frequently to achieve virtue than the darker styles. When darker styles, like sarcasm or cynicism, were used, they were in stories seen to be typical for the virtue of justice. Thus, while humour in its core is a playful processing of incongruity (and its resolution) and morally neutral, uses of certain forms of humour is reflecting vice and others express virtue. Thus, while humour may be in itself not virtuous, it may be a vehicle for all six virtues proposed in the VIA classification (and other virtues that were not studied; see Morreall, 2010).

2.4 Humour and Well-Being of the Humourist

There is a growing body of evidence showing that the positive relationship between humour and well-being can only be found when lighter and darker forms of humour aspects are differentiated. For example, lighter humour (or comic) styles, cheerfulness, and humour as a character strength have been associated with life satisfaction and positive affect and with lower levels of negative affect (e.g., Martin, 2007; Martin et al., 2003; Mendiburo-Seguel, Paez, & Martinez-Sanchez, 2015; Ruch & Hofmann, 2012; Ruch, Wagner, & Heintz, 2018). Moreover, darker aspects of humour, such as sarcasm and cynicism, have been related to higher levels of negative affect (Ruch, Wagner et al., 2018). Similarly, Hofmann and colleagues (2019) could show that "lighter" comic styles positively relate to well-being in general and in the vocational domain and also relate positively to mindfulness, while "darker" comic styles related negatively to well-being and a mindful state of being. Furthermore, humour might play a role in work satisfaction of the individuals using humour. Although only few studies exist that investigated this issue, the findings support the idea that lighter aspects of humour relate to higher work satisfaction, while darker and

"laughing at" aspects of humour related to lower work satisfaction (e.g., Hofmann et al., 2017; Rawlings & Findlay, 2016). Also different humour interventions (e.g., humour-based positive psychology interventions, McGhee's humour habit program) have been shown to be effective in enhancing happiness and life satisfaction and in decreasing anxiety, depressive symptoms and perceived stress (for a review, see Ruch & Hofmann, 2017). In summary, these findings show the potential of humour interventions in the mutual fostering of ones sense of humour as well as increasing well-being. Moreover, these findings also suggest that it is useful to focus on training lighter forms of humour.

2.5 Humour Interventions

Humour interventions have a long tradition and started before the foundation of Positive Psychology (cf. Ruch & Hofmann, 2017). Following the categorization proposed by Ruch and Hofmann (2017), trainings of humour differ on three dimensions They may be designed for *individuals* (and individual use) or focusing on *groups*, they may be administered *offline* (i.e., face-to-face or through manuals) or *online* (i.e., through websites or software), and they may be *standardized* (i.e., following guidelines or a strict plan) or ad hoc (i.e., tools and strategies are defined but the procedure of the session is open; e.g., clinic clowns working in groups and responding to the situation without an a priori schedule). In the following section, a brief overview on the intervention results will be given (a more detailed review is given in Ruch & Hofmann, 2017), leaving out all interventions in which the participants are mainly passive receivers of the intervention. Most ad hoc, offline group interventions, such as clinic clown visits, fall into this category. While the main function of these interventions is the elicitation of amusement, participants are subjected to these interventions, with the clowns being the main actors, and they usually do not attempt at changing the sense of humour of the participants. Thus, they are of limited interest for the current chapter and the idea of designing new interventions for individuals wanting to achieve more long-term changes in humour and well-being.

The humour training that has received most attention in the applied fields and research is the 7 humour habits program by McGhee (1996, 2010). McGhee (1996, 2010) developed a manualised humour training program that emphasizes on fostering key humour habits and skills. The training is based on the assumption that humour habits and skills differ in the easiness in which they can be trained and thus the training has a hierarchical order, with more easy humour habits being trained first and more difficult habits being trained later. The habits and skills entail (1) surrounding yourself with humour, (2) establishing a playful attitude, (3) laughing more often and heartily, (4) creating verbal humour, (5) looking for humour in everyday life, (6) laughing at yourself, (7) finding humour in the midst of stress. The 7 Humour Habits Program (7HHP) is a manualised standardized training, which can be completed by an individual him- or herself, or it can be completed in a group. Both forms are accompanied by "Home Play" and "Humour Log Exercises", exercises tasks to aid

the transfer of newly learned skills into everyday life. The training attempts to first build or strengthen the core habits and skills on "good days" and then gradually apply these habits in stressful moments (when angry, anxious, depressed, etc.). Because individuals often loose their humour in the midst of stress, the habits should be repeated at least one week on "good days". This is considered crucial to later sustain the habits on bad (stressful) days.

Evaluations of the 7HHP usually focus on group interventions and show that the program increases positive emotions and subjective well-being, playfulness, trait cheerfulness, optimism, perceived self-efficacy and sense of control over one's internal states (Andress, Hoshino, & Rorke, 2010; Crawford & Caltabiano, 2011; Falkenberg, Buchkremer, Bartels, & Wild, 2011; Ruch, Hofmann, et al., 2018). Moreover, the training decreases seriousness and negative mood (Sassenrath, 2001), depression (in healthy adults, Beh-Pajooh, Jahangiri, & Zahrakar, 2010; Crawford & Caltabiano, 2011, but not in clinically depressed individuals: Falkenberg et al., 2011), perceived anxiety, and self-rated stress (Crawford & Caltabiano, 2011). Although McGhee (1996, 2010) stresses in various places of his manual that one should not laugh at others or at others people's expense and only laugh at one's own expense in a benevolent way (as opposed to a disparaging way which should be avoided)—the manual does not focus on fostering benevolent humour explicitly and the material that individuals collect is not further analysed (see Ruch, Hofmann, et al., 2018).

Following the tradition of online, self-administered PPIs, Gander et al. (2013) introduced a variant of the "three good things" intervention by instructing participants to think of three *funny* things each day for seven consecutive days. This intervention led to a decrease in depressive symptoms, but no effect on self-rated happiness was found. However, increases in self-reported happiness were found for the follow-up measures after one and three months, respectively. Developing this PPI further, Wellenzohn, Proyer, and Ruch (2015, 2016a, 2016b) conducted several placebo-controlled individual online humour interventions and replicated the findings of Gander et al. (2013).

Moreover, they extended the repertoire by creating five variants which all built on existing interventions (such as counting kindness or the gratitude visit): (1) collecting funny events and sharing them with the people involved, (2) counting funny things, (3) applying humour (like using ones signature strength), (4) solving stressful situations in a humorous way, (5) and the "three funny things" exercise. All interventions enhanced happiness, three of them for up to six months (i.e., three funny things, applying humour, and counting funny things), whereas only short-term effects on decreases in self-rated depressive symptoms were found. When looking at the content of these short self-administered online PPIs, none of the instructions point to *which kind of humour* should be collected, counted or shared. "Humour" is always used in descriptions like "remember funny things" etc. Thus, these interventions do not differentiate at all whether participants try to focus on lighter forms of humour or whether they also contain sarcastic and cynic humour, as well as events of malicious pleasure. As a further limitation, the evaluations of those interventions typically do not take the contents of what the participants actually did into account. Thus, a clear

limitation of this approach is that it is unclear, whether this approach may also foster darker forms of humour.

Papousek and Schulter (2008) developed a "cheerfulness training" aimed at enhancing cheerfulness as a state and trait (for a conceptualisation of the state-trait model of cheerfulness, see Ruch & Hofmann, 2012), following an approach based on cognitive behavioural therapy. The core of the training program is to learn and practice techniques to efficiently self-induce cheerful moods (by imagination and voluntary production of nonverbal expressions of cheerfulness), which should improve the ability to cope with adversity and stress and thus positively influence well-being. This program was able to increase cheerfulness, reduce stress and tension, as well as increase well-being. A focus of this training lies in the active generation of cheerful moods by participants. Yet again, the instructions do not explicitly target what kind of humorous materials or imaginations should be used to self-induce cheerful moods. Therefore, this intervention is also unspecific with respect to the intention of the humourist (i.e., light vs. dark).

Hirsch, Junglas, Konradt, and Jonitz (2010) conducted a "humour group" in elderly with a depression. Each session had a special theme linked to humour, coupled with exercises and games, as well as home assignments that should aid the transfer of the newly learned skills into all-day life. The intervention increased the resilience and life satisfaction of the participants from pre to post. Especially patients with severe symptoms of depression profited from the intervention, as they further experienced an increase in state cheerfulness and a decrease in state seriousness (see also Konradt, Hirsch, Jonitz, & Junglas, 2013 for a replication). With respect to lighter versus darker forms of humour in the training contents, the first session entails "psycho-educational" elements: Humour is separated from wit and the distinction between laughing at each other and laughing with each other is drawn. Yet, most other elements focus on turning negative emotional events into "clownish" elements, not explicitly focusing on virtuous aspects.

3 Implications for Future Research and Application: Towards New Trainings Targeting Lighter Forms of Humour

A review of the extant literature on humour shows two things: Firstly, while most humour might be neutral, also lighter and darker forms of humour can clearly be distinguished in the models of humour currently used in research and practice suggests this variation needs to be considered. Secondly, existing humour trainings do not incorporate this knowledge, or do not do so in a strict manner. While existing trainings focus on neutral humour and sometimes even propose the use of benevolent humour (e.g., McGhee, 2010) new interventions and trainings are needed that explicitly foster lighter forms of humour to close the "virtue gap" in humour (cf. Ruch & Heintz, 2016). Moreover, another group of interventions may target increas-

ing the sensitivity for darker forms of humour or even the reduction of darker forms of humour. In the next section, we would like to develop some ideas on the following questions: How can we foster lighter forms of humour? How can we reduce darker forms of humour (or can darker forms even be turned into lighter forms)? While we cannot answer these questions thoroughly at this stage, we can give first proposals on how answering these questions could be achieved in future research and applications. Yet, it has to be noted that none of the following ideas were empirically tested yet.

Training humour as a character strength. When attempting to foster lighter forms of humour by means of training humour as a character strength, available trainings to foster strengths or signature strengths may be adapted. Using humour in different or new ways each day within signature strength trainings have been proven useful (e.g., Seligman, Steen, Park, & Peterson, 2005; Schutte & Malouff, 2018). Importantly, the instructions to these interventions would need to be specified to stress benevolent uses of humour, as, although the character strength definition of humour only entails lighter elements, the instructions found in manuals are not as specific as the definition. For example, to use humour in new ways, Niemiec (2017) suggests to "do something spontaneous and playful around another person e.g., saying something silly, contorting your body in a weird way, or telling a funny story or joke" (p. 42) or "Watch a classic comedy show you haven't seen before and laugh as much as possible" (p. 42). Niemic further suggests to exercise "little character use", such as smiling to a stranger on a public transportation (Niemiec, 2017; p. 13). These instructions would need to be specified to explicitly target lighter forms of humour, to turn "telling jokes and being playful" in "telling benevolent jokes to lighten others up" and "being playful in a non-hurtful manner". This would help to clarify what "optimal strength use" is: offering pleasure/laughter to others (Niemiec, 2013), *without doing so at somebody's expense*, in line with Aristotle's thoughts on *Eutrapelia.* With these specifications, the individuals receive guidance on the quality the humour should have that they engage with and helps them to channel the intentions into more virtuousness. Concretely, we would thus propose to add the definition of humour as a character strength to the exercise instructions and explain that in this concept, the focus is exclusively on benevolent forms of humour. Then, a short explanation should be provided which forms of humour do not meet the character strength criteria and should thus be avoided. By giving some examples, sensitivity for the quality of the humour and its importance can be raised.

Training lighter humour/comic styles. In the comic styles, the intentions of the humourist are explicitly summarized. Benevolent humour aims at arousing sympathy and an understanding for the incongruities of life, fun aims at spreading good mood and good camaraderie and wit aims at illuminating specifics like a flashlight (desire for being brilliant) and receiving appreciation from society (cf. Ruch, 2012). Therefore, benevolent humour, wit and fun may be targeted in interventions. The latter two styles may also be fostered with already established methods, as most evaluated humour trainings (Hirsch et al., 2010; McGhee, 1996, 2010; Papousek & Schulter, 2008) entail elements of fun and wit. McGhee also targets fostering benevolent humour to some extent within the habit "laughing at yourself" (cf. Hofmann, 2018). Yet, the biggest advancements will have to be made in developing trainings

of benevolent humour that have the intention "to arouse sympathy and an understanding for the incongruities of life" (Ruch, 2012; p. 72). Such trainings need to start with increasing the awareness that benevolent humour grounds in a specific *world view*. The view comprises of the notion that nothing and nobody is perfect, that we should look at the world and ourselves kindly and that we can find something light in every situation. Once this view is established, one can start to incorporate humour. Interestingly, this view is also the basis of a mindful attitude. Therefore, first hypotheses have been put forward how mindfulness could assist the training of benevolent humour as both share qualities, such as being based in a "sympathetic heart" (for an overview on first hypotheses and data on the Humour and Mindfulness Relationship Model, see Hofmann et al., 2019).

The comic style model is also suitable to address the question of how the sensitivity for darker styles can be increased and darker styles can be reduced or even turned into lighter styles. One might target sarcasm and cynicism to be reduced in use, unlearned, modified or undone in trainings. For example, individuals could be taught to replace their use of sarcasm and cynicism with the use of benevolent humour, wit and fun. The reduced use of these darker styles should have a positive impact on the well-being in the individual. Yet, there are some further thoughts to this idea. While sarcasm and cynicism may be seen as maladaptive coping mechanisms, they may still be better than "even worse" strategies (or no coping srategies at all). We propose that in some cases, being sarcastic or cynic is still better than utilizing coping strategies that are even more harmful (physically and psychologically) or the individual not coping at all. Thus, we do not propose that sarcasm and cynicism have to be reduced at any cost, but we suggest that in a first step, the sensitivity for the use of those darker styles should be increased. The heightened sensitivity and self-reflection may lead to changes in the individual's use or communication of these styles (i.e., with who can I be sarcastic and with whom should I better avoid it?). This step may be the most important achievement. Then, in consequent steps, one may even attempt to reduce or unlearn the darker styles, if the individual has capacities to do so.

Looking more closely at what would need to be "undone" in these consequent steps, the first change would need to be made in the intentions and attitudes of the individual: To hurt the partner (sarcasm); to devaluate generally accepted values, to emit venom (cynicism; Ruch, 2012). The negative attitude would need to be targeted as well as the pessimistic view of the world. Then, the hostile and galling behaviour towards others would need to be addressed and replaced by more favourable humour-related behaviours. More concretely, once the attitude is targeted, the "humorous potential" could be channelled into more lighter forms of humour that eventually replace the formerly used sarcasm and cynicism. The processes of undoing these styles could also receive help from character strengths: As the correlations show that the darker styles go along with a lack (or less) interpersonal strengths, as well as fewer strengths of restraint, fostering these strengths may aid the changing of sarcasm and cynicism into more light forms of humour (see Ruch et al., 2018).

Although satire/corrective humour also belongs to the darker styles, we would not suggest to systematically undo this style, as at societal level, satire can play an important role too. Although it might have negative consequences for the target, the

intention is to point to wrongdoings, deviations and change a situation *for the better* (cf. Ruch, 2004).

Training lighter forms of humour in the model of everyday humorous conduct. At the level of each of the six factors identified by Ruch and Heintz (in press) it is possible to say whether this aspect of humour should be trained or not. In part, some of the factors require a training that is already covered in the 7HHP (McGhee, 2010). With respect to the "earthy and mean-spirited" factor, future trainings should aim at reducing this form of humour, for example by alerting the humourist about the feelings of the potential target and the surrounding audience when he or she is funny at the expense of others. So this factor earthy/mean-spirited humour would be the object of a training aimed at unlearning or modifying its expression. The other five factors can mostly be trained by traditional trainings and are covered in the 7HHP by McGhee (1996, 2010). With regards to factor 2 (*entertaining*), this is covered in various aspects in McGhee's training that incorporates in several places the notion that one should foster the ability to also perform humour for others. With regards to factor 3 *inept*, the high scorer will need training to be able to laugh at own shortcomings (which is addressed in McGhee's step "learning to laugh at yourself") and stop misreading the humour of others (an element that is not covered in current trainings yet). Also, the last two factors (4 and 5) could be addressed in trainings (although with less priority, as they are not explicitly virtuous). Training of laughter would encourage to laugh heartily—not only using the face, but engaging the whole body (as represented in McGhee's humour habit "laughter"). Training of canned humour would provide access to consuming humour in the form of stand-up comedians, imitating others, engaging in humour reflecting cultural and regional origin, and general training of telling jokes (as represented in McGhee's humour habit "verbal humour"). This training will not be needed for individuals that use humour spontaneously and tell comic episodes from real life.

Training humour guided by virtues. The research shows that while humour may be in itself not virtuous, it may be a vehicle for all six virtues (and others that were not studied; see Beermann & Ruch, 2009a, 2009b; Müller & Ruch, 2011). This opens up possibilities for trainings and a more comprehensive trainings with the aim to enable the trainee to generate humour in the service of different virtues, i.e., to be benevolent, wise, just, courageous, transcendent and with temperance (virtues of the VIA classification; for an alternative approach, see Morreall, 2010; who linked humour to the virtues of open-mindedness, patience, tolerance, graciousness, humility, perseverance, and courage). As mentioned before, humour may also contain critical views of others and may be more related to vice than virtue. A training module therefore is needed that helps participants to identify virtue (and vice) in humour and then enables them to generate humour in service of these virtues, i.e., expressing humanity or justice, rather than exposing shortcomings and follies in a skilled but mercilessly manner (see Ruch & Hofmann, 2017).

To conclude, we argue that using lighter forms of humour may complement the growing body of positive psychology interventions, which aim enhancing well-being by fostering positive emotions, thoughts and behaviours, rather than to reduce negative states (Parks & Biswas-Diener, 2013).

4 Implications for Future Research and Application: Humour Interventions in Multi-cultural Contexts

Folk wisdom suggests that there are cultural differences in the sense of humour and humour use, with extreme cases of some nations "lacking humour altogether" and other nations having their own humour (e.g., British humour, cf. Davies, 1990). Yet, there is little evidence from research that suggests that individuals across the world differ in their sense of humour or humour appreciation (for more details, see Eysenck, 1944; Martin & Sullivan, 2013; Ruch & Forabosco, 1996). In turn, there are surely things that clearly differ between the cultures and impact on humour training: Firstly, humour training programmes have been adapted and conducted in one cultural context (for an overview, see Ruch & Hofmann, 2017). When aiming for cross-cultural adaptations of the same program, several challenges have to be overcome, such as the term "humour" not having the same meaning in every culture, or might not be the prime term. Consequently, in a first step, a common denominator of "what humour is" would need to be defined and lighter aspects would need to be stressed. Secondly, the quality and quantity of cultural display rules and social norms in the expression of humour will differ between cultures, which is an important factor to be considered for the training of humour. Such cultural display rules, including who can be laughed at and when need to be identified and the training modules need to be checked for generalizability of various cultures. Whereas lighter forms of humour will be less prone to such problems, one still needs to consider that fun and wit correlate negatively with character strengths of restraint (Ruch et al., 2018), thus, if restraint is much valued in a culture, one may also be cautious when training fun or wit. Similarly, the link of humour to temperance may be most sensitive to cultural differences. To know when to utter which humour (i.e., in which situation, in which company, etc.) may be linked to temperance. Thirdly, when attempting to train mixed groups of male and females participants, one has to consider that roles and stereotypes on gender may vary across cultures.

All in all, we are only at the beginning of humour interventions that explicitly focus on the "virtue gap" in humour and may also be adapted to several cultural contexts. Yet, we believe such interventions would enrich the canon of PPIs and also give humour research and application a new direction.

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